

# **ABSTRACT**

The invention concerns a method for digital simulation of a  
5 die-stamping process comprising the following steps:  
recording at least one metamodel consisting of a permanent  
collection of the digital representations of elementary  
components of die-stamping tools, each of said elementary  
components being defined in the form of finished elements,  
10 and comprising digital static attributes; recording a  
digital model for deforming a blank used in the process to  
be simulated; selecting a subassembly of said permanent  
collection, by temporarily recording said elementary  
components representing a particular die-stamping tool  
15 corresponding to the simulation concerned, said subassembly  
constituting a specific collection in the form of digitized  
finished elements of the specific collection, parameterizing  
said digitized finished elements of the specific collection,  
and the corresponding attributes based on the  
20 characteristics of the process to be simulated; recording  
the digital data representing the relative movements of the  
components of said specific collection, based on operating  
cycles of the die-stamping process to be simulated;  
recalculating the digital models for deforming the blank  
25 based on the recorded digitized data in the parameterized  
specific collection, of the digital model of the blank, and  
of the specific displacements; generating a digital or  
visual representation of deformations of the blank by  
applying said recalculated digital model.